

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Ex parte CHRISTOPH HERRMANN AND YONGGANG DU

Appeal No. 2006-0398
Application No. 09/763,845

ON BRIEF

MAILED

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PAT. & T.M. OFFICE
BOARD OF PATENT APPEALS
AND INTERFERENCES

Before KRASS, JERRY SMITH, and RUGGIERO, Administrative Patent Judges.
KRASS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 14-33.

The invention pertains to wireless networks. In particular, it is said that a wireless network having improved transmission capacity is provided by having at least a base station and a plurality of assigned terminals for exchanging user data and control data.

Representative independent claim 14 is reproduced as follows:

14. A wireless network, comprising:

a base station;

a terminal assigned to the base station for exchanging user data and control data, the terminal operable to transmit a first signaling sequence as an

indication of a wish by the terminal to use one of a plurality of contention channels;

wherein the base station is operable to generate and detect a pulse representative of a correlation of the first signaling sequence in response to receiving the first signaling sequence; and

wherein the base station is further operable to transmit a provision message over at least one contention channel to the terminal in response to generating and detecting the pulse.

The examiner relies on the following references:

Kanterakis et al. (Kanterakis)	6,389,056	May 14, 2002 (filed Mar. 24, 1999)
Suzuki et al. (Suzuki)	6,400,752	Jun. 04, 2002 (filed Oct. 29, 1998)
Jung et al. (Jung)	6,621,807	Sep. 16, 2003 (filed Apr. 13, 1999)

Claims 14-33 stand rejected under 35 U.S.C. §103. As evidence of obviousness, the examiner cites Kanterakis and Suzuki with regard to claims 14-17, 21-28, 32, and 33, adding Jung with regard to claims 18-20 and 29-31.

Reference is made to the brief and answer for the respective positions of appellants and the examiner.

OPINION

In rejecting claims under 35 U.S.C. §103, it is incumbent upon the examiner to establish a factual basis to support the legal conclusion of obviousness. See In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teachings, suggestions or implications in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); ACS Hosp. Sys., Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. Note In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). If that burden is met, the burden then shifts to the applicant to overcome the prima facie case with argument and/or evidence. Obviousness is then determined on the basis of the

evidence as a whole and the relative persuasiveness of the arguments. See Id.; In re Hedges, 783 F.2d 1038, 1040, 228 USPQ 685, 687 (Fed. Cir. 1986); In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984); and In re Rinehart, 531 F.2d 1048, 1051, 189 USPQ 143, 146-147 (CCPA 1976). Only those arguments actually made by appellants have been considered in this decision. Arguments which appellants could have made but chose not to make in the brief have not been considered and are deemed to be waived [see 37 CFR §41.67(c)(1)(vii)].

With regard to the independent claims 14, 24, 26, and 33, the examiner contends that Kanterakis discloses the claimed subject matter (see pages 3-4 of the answer) but for the terminals being assigned to the base station. However, contends the examiner, Suzuki teaches the correlation of a received signaling sequence by an assigned terminal, assigned to a host terminal operating in a wireless network environment (referring to Figure 12 and column 2, line 25 through column 4, line 35; and column 10, lines 44-61).

The examiner concludes that it would have been obvious to implement Kanterakis's teachings "by assigning the terminals to be assigned to a base station for the purpose of supporting a wireless network environment where the terminals are assigned to the host terminal functioning as a base station" (answer-page 5).

Appellants argue that none of the applied references discloses or suggests a "signaling sequence," as required by the instant claims. In particular, appellants argue

that one must interpret that term, as defined in the instant specification, at page 5, lines 27-29, as meaning "a pseudo-random square-wave signal." Appellants further point to page 1, lines 10-18, of the specification, as distinguishing "signaling sequence" from a random-access burst signal including a preamble.

By comparison, argue appellants, Kanterakis teaches an access-burst signal that includes a preamble. Therefore, argue appellants, the access-burst signal of Kanterakis cannot qualify as a signaling sequence as defined by appellants (brief-page 13). Moreover, argue appellants, none of the signals in Suzuki qualifies as a signaling sequence defined by appellants and recited in the independent claims.

The examiner's response is to cite page 4, lines 5-8, of the instant specification:

According to the CDMA method, which is a special code spreading method, binary information (data signal) originating from a user is modulated with a different code sequence. Such a code sequence comprises a pseudo-random square-wave signal (pseudo-noise code) whose rate, also referred to as chip rate, is generally considerably higher than that of the binary information... (answer-page 10).

From this, the examiner concludes that appellants admit that CDMA systems employing a spreading method modulated with the pseudo-random square-wave signal is prior art (answer-page 10). Since Kanterakis also teaches a CDMA system (e.g., in the abstract), where signals are modulated with a code sequence through a spreading sequence generator (Figure 3, item 327; column 4, lines 18-19), the examiner concludes that the signals received by the CDMA receiver in Kanterakis constitute a

signaling sequence comprising the pseudo-random square-wave signal, thus meeting the instant claim language “signaling sequence” as defined by appellants.

Moreover, argues the examiner, Kanterakis teaches a random access burst signal (column 5, lines 63-67) spread by an orthogonal Gold code (noting column 1, lines 17-23, of Kanterakis, and that appellants admit, at page 2, lines 19-20, of the instant specification, that signaling sequences may be a Golay Gold or Kasami sequence). The examiner indicates that Kanterakis illustrates, in Figure 3, the transmission of a signaling sequence by multiplying the output signal by a spreading sequence generator 327, which generates a pseudo-random square-wave signal, concluding that access bursts are transmitted as the signaling sequence (output of 426 in Figure 4) by multiplying the access bursts (output of Gain coupled to 425) by the spreading sequence generator 427 (see answer-pages 10-11)

We have reviewed the evidence before us, including the applied references and the arguments of appellants and the examiner, and we conclude therefrom that the examiner has presented a prime facie case of obviousness which has not been successfully rebutted by appellants.

The examiner has reasonably pointed to portions of Kanterakis indicating that signals received by the CDMA receiver therein constitute a “signaling sequence,” as claimed, because such signals comprise pseudo-random square-wave signals. The examiner also points to certain admissions by appellants at page 2 of the specification

regarding access burst signals spread by an orthogonal Gold code (see page 12 of the answer).

Yet, while appellants could have filed a reply brief to contest these rather reasonable positions of the examiner, for whatever reason, appellants chose not to do so. Therefore, we are left to balance a somewhat reasonable position by the examiner as to why the combination of applied references discloses the instant claimed subject matter, within the meaning of 35 U.S.C. §103, against appellants' rather meager argument that the access-burst signal of Kanterakis does not qualify as the claimed "signaling sequence" which is defined as a pseudo-random square-wave signal.

Although the examiner gives a somewhat detailed response as to why the signals in Kanterakis are pseudo-random square-wave signals, qualifying them to be the claimed "signaling sequence," appellants never offer a substantive response rebutting this position.

While appellants assert that they have "distinguished" "signaling sequence" from a random-access burst signal including a preamble at page 1, lines 10-18, of the specification (brief-page 13), our review of that section of the specification finds no such distinction. The cited portion merely indicates that the prior art taught that a random-access burst comprised a preamble part and a data part, wherein the preamble part comprised a preamble sequence spread by an orthogonal Gold code (preamble code).

There is no teaching as to how appellants' "signaling sequence" distinguishes thereover.

Since appellants offer no convincing rebuttal showing any error in the examiner's position, we will sustain the examiner's rejection of claims 14-33 under 35 U.S.C. §103.

AFFIRMED

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